

Technical Appendix 13.3: Noise Survey Measured Data

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1.0 Introduction

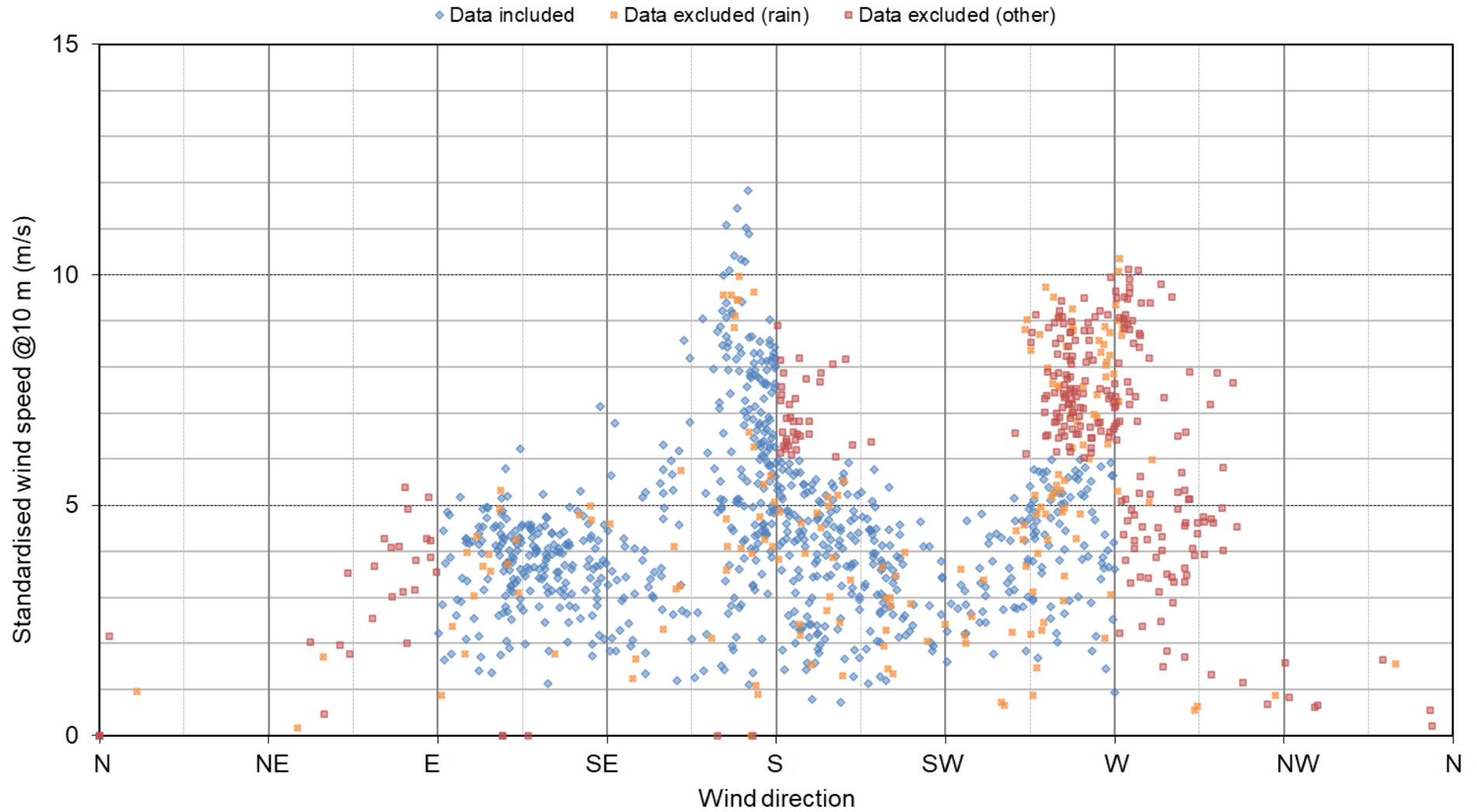
This Technical Appendix contains the details of the noise and wind data measured during the background noise survey. For all graphs shown, blue diamonds represent data points that have been included in the assessment, orange squares illustrate where data have been excluded due to rain, and red squares show where data have been excluded for other reasons, such as wind direction or evidence of extraneous noise.

2.0 Data Graphs

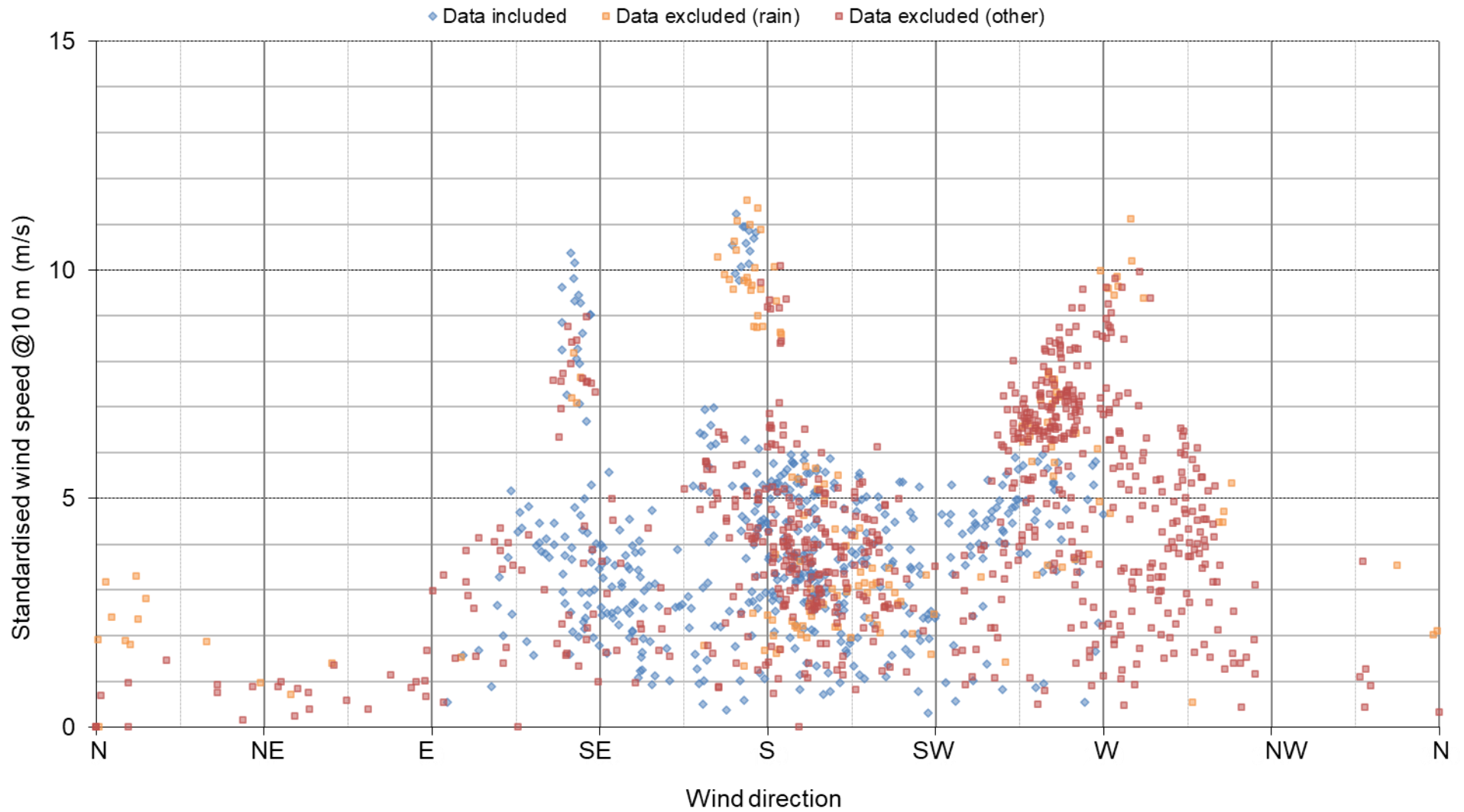
Graph 1 and Graph 2 show the range of wind speeds and directions captured during the background noise survey. The data is shown for Hopehead, which includes some directional filtering for potential wind turbine noise, as discussed in Chapter 13 of the EIA Report. Data captured under wind conditions from west, through north, to east, have been excluded for this location only. Other measurement locations have not excluded this data. It can be seen in Graph 2 that there are further exclusions during the night-time period, which are predominantly due to dawn chorus, as set out in Chapter 13.

Graph 3 to Graph 8 display the measured noise level, in terms of the LA90 parameter, plotted against the standardised 10 m wind speed for each of the noise measurement locations and the quiet daytime and night-time periods. These figures display the data points that are included and excluded, together with the trend line and expression which passes through all included data points. The noise limit has been shown on these graphs as a thick black line.

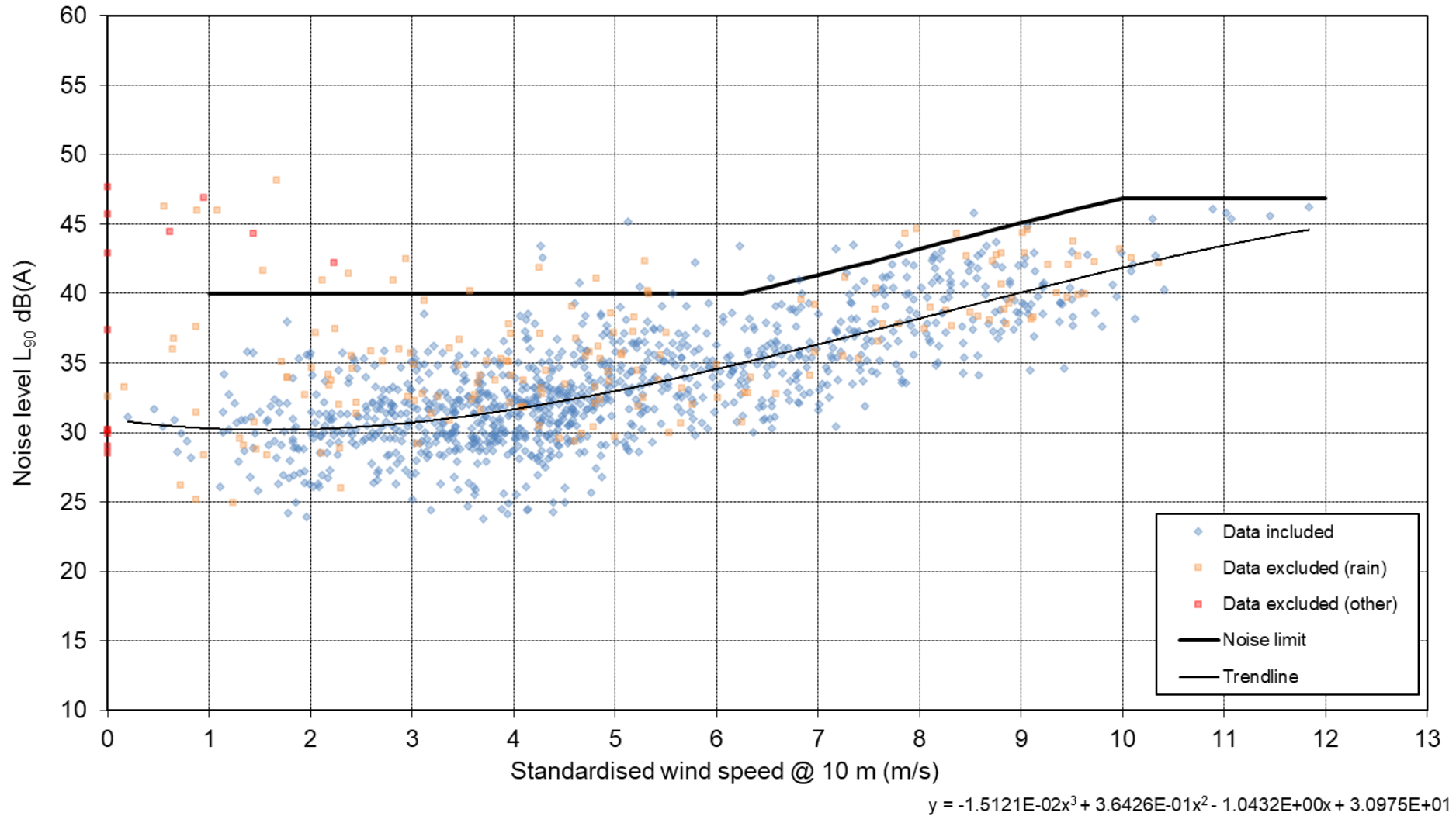
Graph 1 – Wind Speed and Direction Data During Baseline Noise Survey - Quiet Daytime Period



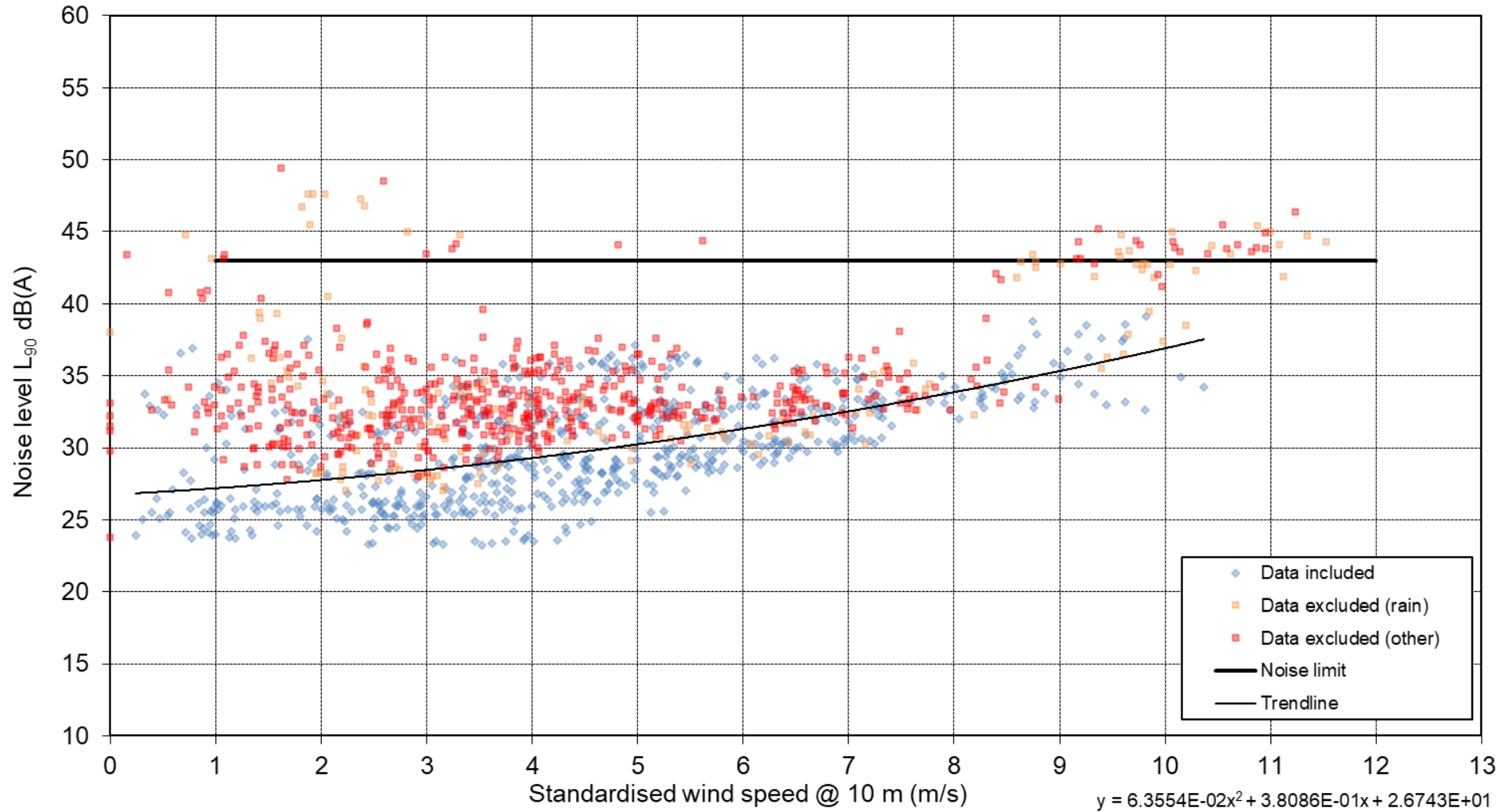
Graph 2 – Wind Speed and Direction Data During Baseline Noise Survey – Night-time Period



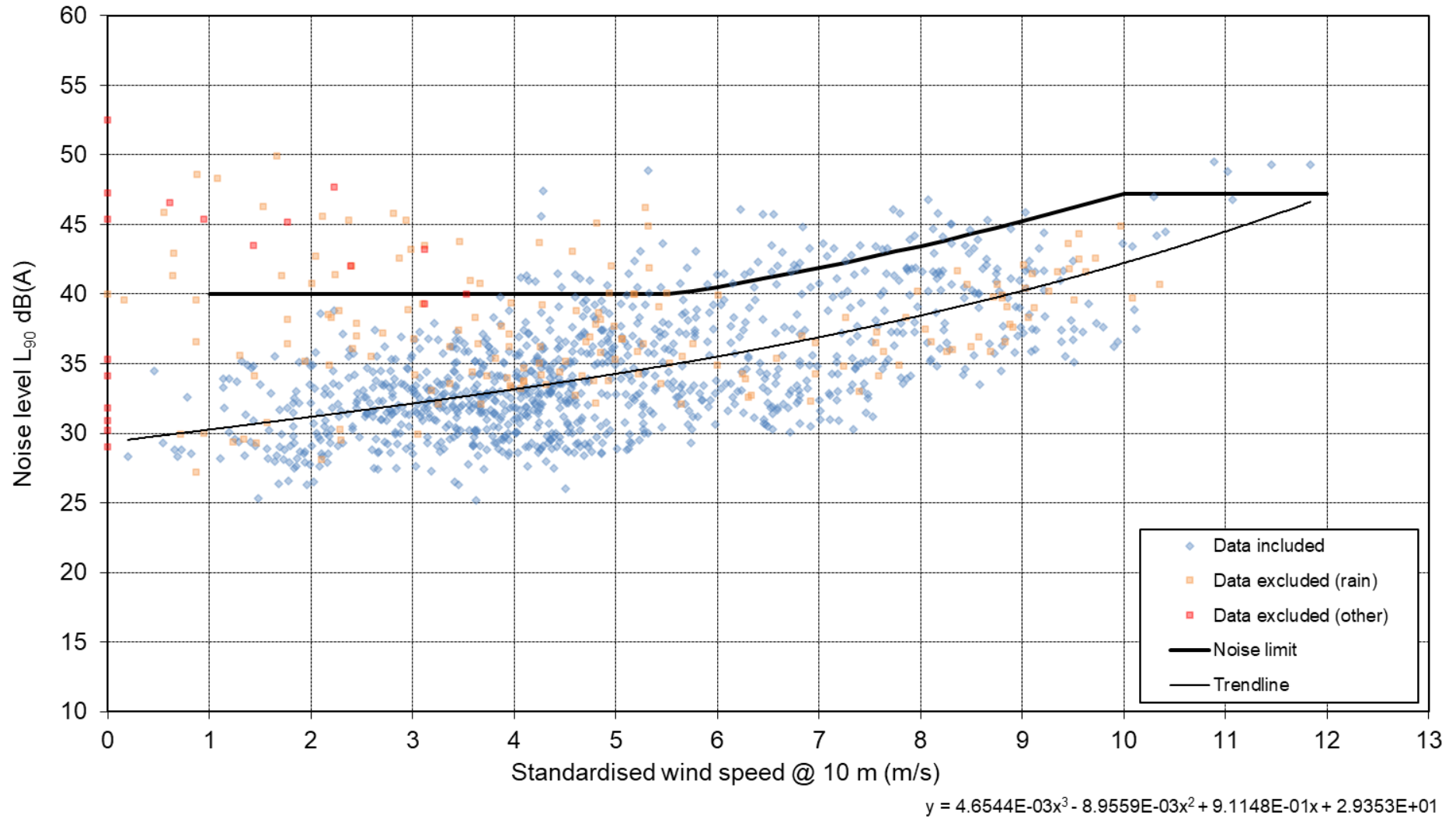
Graph 3 – Background Noise Data During Baseline Noise Survey – Quiet Daytime Period – NML1 Menzion Farm



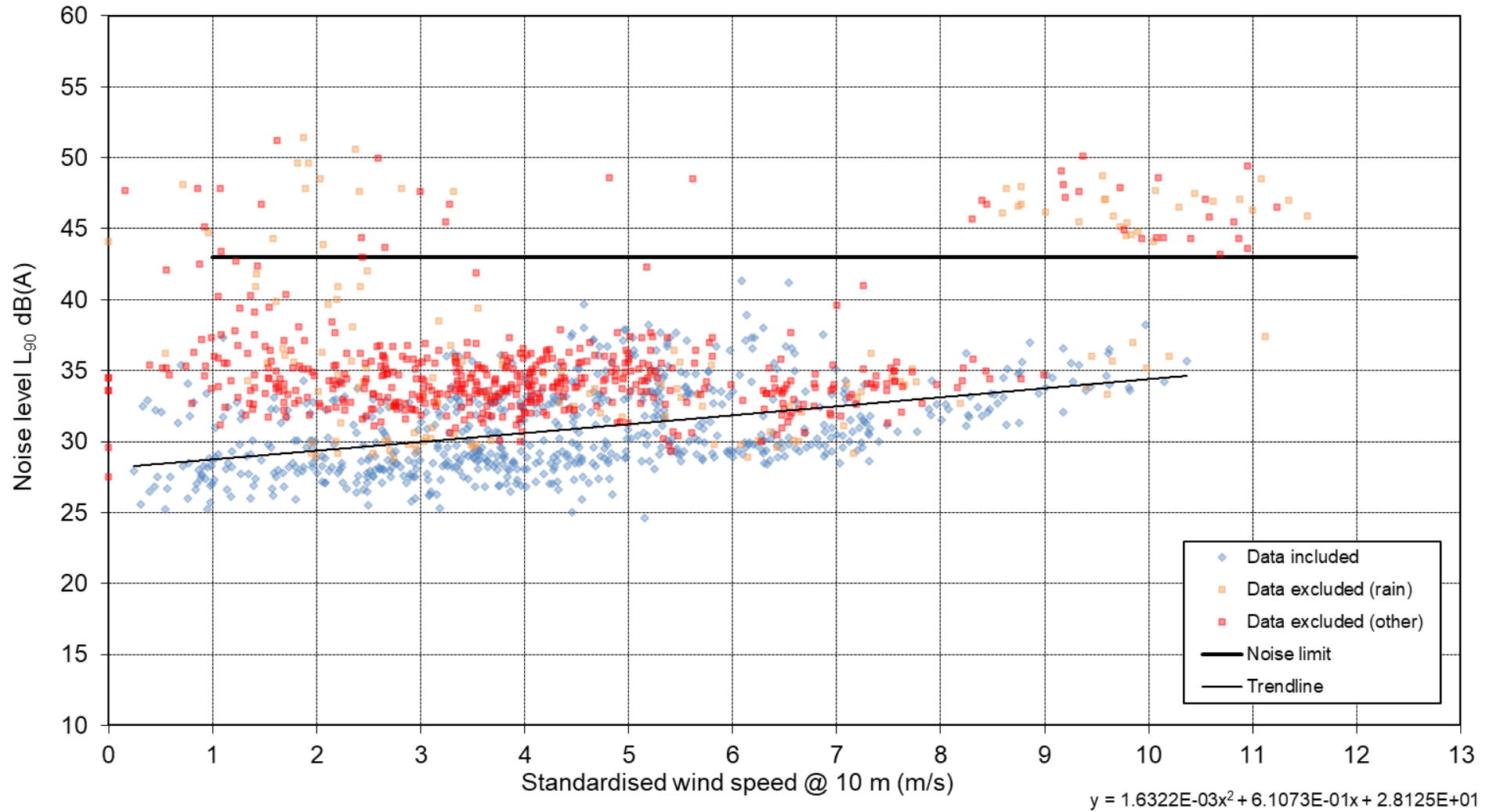
Graph 4 – Background Noise Data During Baseline Noise Survey – Night-time Period – NML1 Menzion Farm



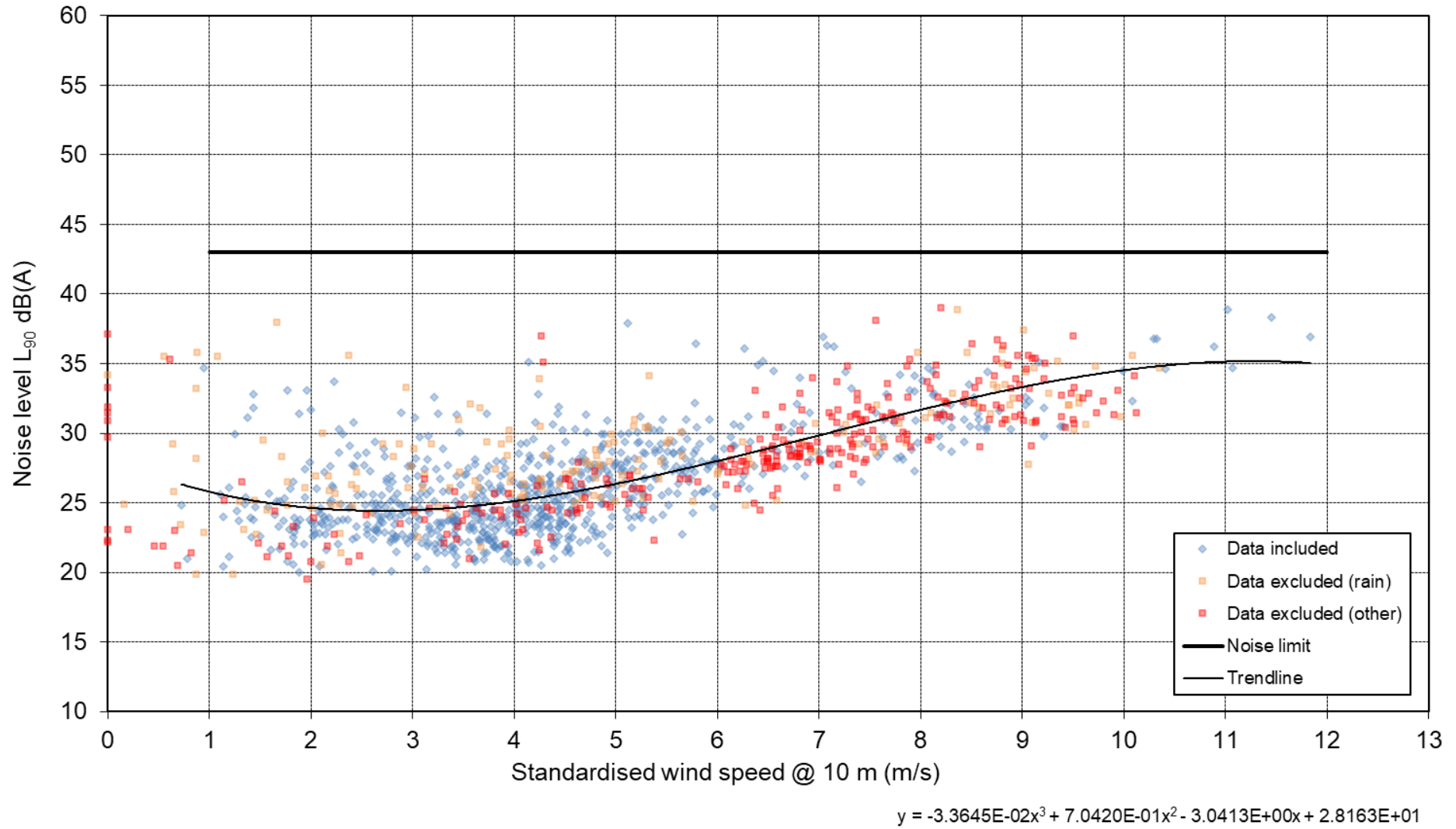
Graph 5 – Background Noise Data During Baseline Noise Survey – Quiet Daytime Period – NML2 Oliver House



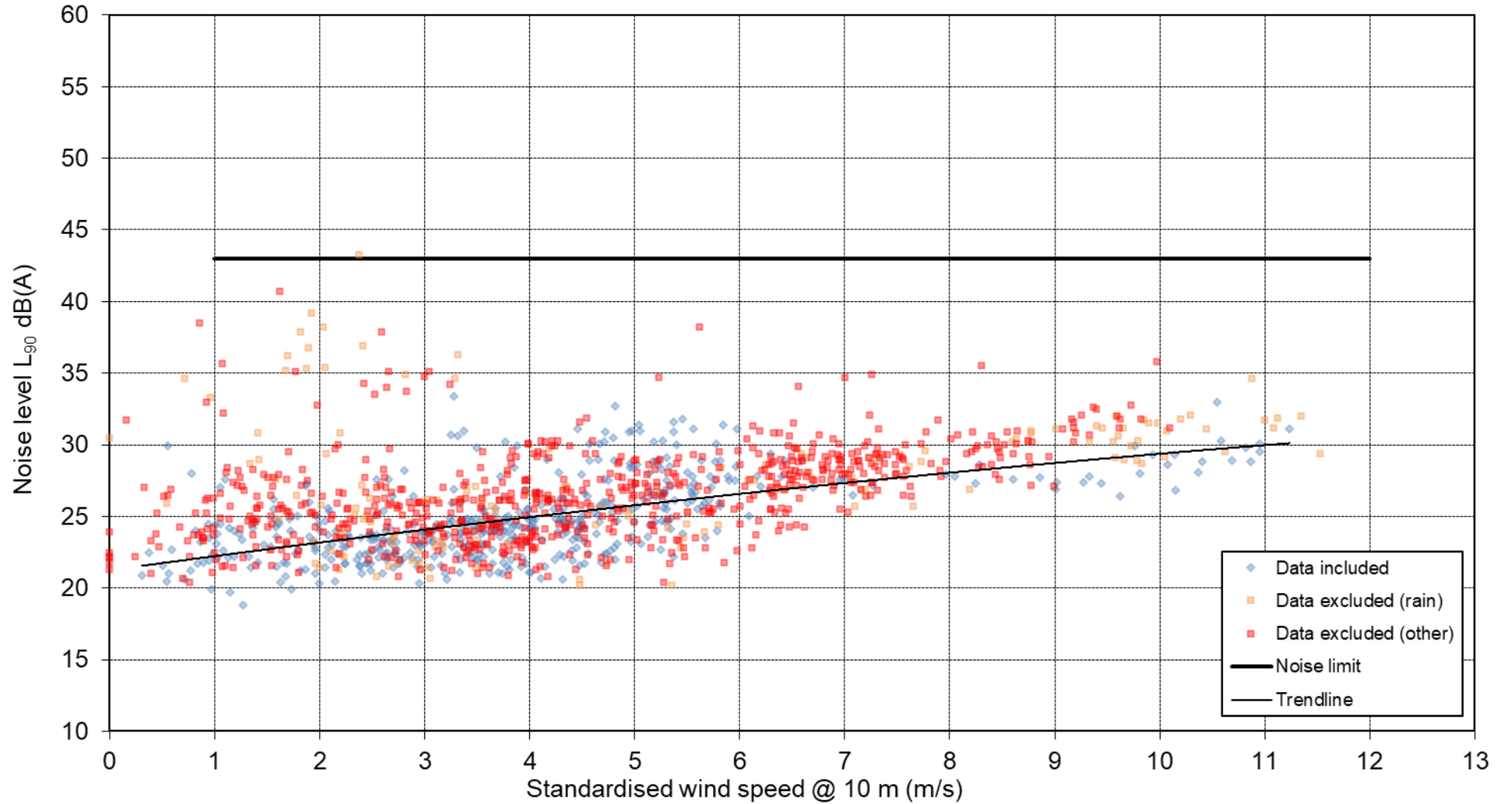
Graph 6 – Background Noise Data During Baseline Noise Survey – Night-time Period – NML2 Oliver House



Graph 7 – Background Noise Data During Baseline Noise Survey – Quiet Daytime Period – NML3 Hopehead



Graph 8 – Background Noise Data During Baseline Noise Survey – Night-time Period – NML3 Hopehead



$$y = -1.8817E-02x^2 + 1.0007E+00x + 2.1242E+01$$